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June 8, 1992

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Room 222
Washington, D.C. 20554

RECEIVED
JUN - 8 1992
FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Re: MM Docket No. 92-81, RM-7875

Dear Ms. Searcy:

Transmitted herewith, on behalf of Pulitzer Broadcasting Company are an original and four copies of "Comments of Pulitzer Broadcasting Company" in the above-referenced proceeding.

Please file the original, and stamp and return the copy enclosed which is marked for that purpose. In the event there are any questions concerning this matter, please communicate with this office.

Sincerely yours,

Eric T. Werner

ETW/tlf
Enclosures
cc: Michael C. Ruger, Esq. (w/encl.)

No of Copies rec'd 0+4

ORIGINAL

BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

In the Matter of	)	
	)	MM Docket No. 92-81
Amendment of Section 73.606(b)	)	RM-7875
Table of Allotments	)	
Television Broadcast Stations	)	
(Farmington and Gallup, New Mexico)	)	

COMMENTS OF PULITZER BROADCASTING COMPANY

PULITZER BROADCASTING COMPANY

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Its Attorneys

June 8, 1992

SUMMARY

In its Petition for Rule Making, Pulitzer Broadcasting Company requested the reallotment of Channel 3 from Gallup, New Mexico, to Farmington, New Mexico, and modification of its construction permit for Station KOAV to specify Farmington as its new community of license. The Petition satisfied the threshold requirements necessary for approval but did not provide the Commission with the materials to verify precisely the claimed service benefits. Accordingly, the Commission asked Pulitzer to supply additional maps to demonstrate the effect of terrain on signal propagation in the Farmington area. The Commission also asked for Comments on the comparative usefulness of allotting a new commercial UHF channel to Farmington rather than reallotting Channel 3.

Pulitzer remains interested in the reallotment of Channel 3 from Farmington to Gallup and, toward that end, has filed these Comments which demonstrate clearly that reallotment of Channel 3 to Farmington would produce an arrangement of allotments that is preferable to both the existing Table and to the allotment of a new UHF station.

The proposed reallotment is preferable to the status quo because it will provide new television service to more than 3,000 persons presently unserved in Farmington and its surrounding communities. Moreover, it will bring an alternative service for the first time to more than 67,000 persons in the same region. These quantitative service advantages are augmented by the

superior qualitative characteristics of the Farmington community as a center for commerce and culture that Gallup cannot match.

By contrast, maintaining the allotment of Channel 3 to Gallup will in no sense advance the public interest. Further analysis of relevant market indicators has revealed that Gallup cannot provide viable economic support for a television station. Accordingly, Pulitzer has decided against constructing and operating a Gallup station as originally planned. Thus, as presently authorized, Station KOAV is not a potential service for Gallup.

Reallotment of Channel 3 to Farmington would also be preferable to allotment of a new commercial UHF channel to that community because a VHF station would be more cost and energy efficient than a comparable UHF facility. Rugged terrain features surrounding Farmington would require a higher tower and significantly more energy to operate in order to achieve the coverage advantages anticipated from proposed Channel 3. It would be unreasonable and wasteful to allot a more costly and less efficient UHF channel to Farmington while <u>two</u> VHF allotments remain idle at Gallup.

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BEFORE THE
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TO: Chief, Allocations Branch

COMMENTS OF PULITZER BROADCASTING COMPANY

Pulitzer Broadcasting Company (hereinafter "Pulitzer"), permittee of Station KOAV(TV), Channel 3, Gallup, New Mexico (File No. BPCT-891010KG), by its attorneys and pursuant to Sections 1.415 and 1.420 of the Commission's Rules, herewith submits its Comments in response to the Notice of Proposed Rule Making in MM Docket No. 92-81, DA 92-436, released April 16, 1992 ("Notice"). These Comments provide further support for Pulitzer's Petition for Rule Making ("Petition") in the above-captioned proceeding and request for modification of its construction permit for KOAV to specify a change in community of license from Gallup to Farmington.[1/]

The Commission recognized in the Notice that Pulitzer's Petition satisfies the threshold requirements for the requested reallotment and change of community of license. Notice at 2 ¶ 6.

1/ These Comments supplement the assertions advanced in the Petition and incorporate by reference all of the material set forth therein.

As indicated in the Petition, and set forth more fully herein, the proposal also would "better serve the Commission's allotment priorities and policies than maintaining the allotment to the existing community . . . ." Report and Order in MM Docket No. 88-526, 4 FCC Rcd 4870, 4873-74, 66 Rad. Reg. 2d (P & F) 877, 882-83.

I. THE PROPOSED REALLOTMENT WOULD ADVANCE THE COMMISSION'S TELEVISION ALLOTMENT PRIORITIES BY PROVIDING A NEW FIRST SERVICE AND A SECOND SERVICE TO THE SIGNIFICANT POPULATION IN AND AROUND FARMINGTON

In its Petition, Pulitzer demonstrated that "[t]he allotment to Farmington would better serve the Commission's television allotment priorities and policies than the allotment at Gallup because it would provide a first service to at least 11,232 persons [and] a new second service to at least 90,462 persons" based on 1986 Census data. Petition at 3, Engineering Exhibit at Figure 7.[2/] In order to verify these figures, the Commission requested that Pulitzer submit "a map showing the approximate contour ofStation [sic] KREZ's actual coverage" accompanied by a map showing a modified contour for Station KOAV reflecting the shielding of its signal in the direction of Durango. Notice at 2 ¶ 7.

The supplemental Engineering Statement prepared by Jules Cohen and Associates, that accompanies these Comments, sets forth

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2/ Citations to the engineering report that accompanied Pulitzer's Petition for Rule Making will appear herein as "Engineering Exhibit at ___." Citations to the supplemental engineering report that accompanies these Comments will appear as "Engineering Statement, App. at ___."

in greater detail the foundation for the increased service benefits that the reallotment would produce. The contour maps contained in the Statement (Figures 1, 2, 3, and 4) were derived from Station KREZ, Station KOBF, and predicted Station KOAV Grade B signal coverage maps generated by the Communication System Performance Mode (CSPM) program of the Institute for Telecommunications Sciences. Engineering Statement, App. at 2 and Figures 1, 2, 3, and 5. Because terrain obstructions impair use of the conventional method for determining Station KREZ's Grade B coverage contour, the CSPM provides the most accurate method for making this determination. These maps also reflect population adjustments substituting 1990 Census data for the 1986 Census update data used in the original Engineering Exhibit.

The maps clearly reveal that, contrary to its theoretically calculated predicted contour, Station KREZ does not place a Grade B signal into Farmington. They demonstrate that, despite some shadowing caused by local terrain, Station KOAV, operating as indicated, will still provide first local service to 3,366 persons within a 3,162 square kilometer area and a second service to 67,444 persons within a 10,176 square kilometer area. Engineering Statement, App. at 5. Figure 5 of the Engineering Statement shows that 45,000 persons and 12,545 square kilometers not served by Station KREZ will receive service from proposed Station KOAV. As the Engineering Statement explains, the CSPM map overlaying Station KREZ and predicted Station KOAV, Figure 5, had to exclude part of KOAV's predicted coverage area to the

south in order to preserve an adequate level of detail in the maps. Engineering Statement, App. at 6. Thus, the total number of persons served by proposed Station KOAV and not by Station KREZ might well be greater.

Accordingly, the reallotment of Channel 3 to Farmington would introduce substantial new first-service while providing local viewers with an alternative source of programming for the first time, thereby advancing the Commission's first, third, and fourth allotment priorities. See Report and Order in MM Docket No. 88-526, 4 FCC Rcd 4870, 4871 n.8, 66 Rad. Reg. 2d (P & F) 877, 880 n.8 (1989) [hereinafter "Report and Order"].

II. REALLOTMENT OF CHANNEL 3 FROM GALLUP TO FARMINGTON WOULD BE MORE EFFICIENT, EQUITABLE, AND ECONOMICAL THAN ALLOTMENT OF A UHF CHANNEL TO FARMINGTON AND, THUS, WOULD RESULT IN A PREFERABLE TABLE OF ALLOTMENTS

In addition to the increased service it would afford to the population surrounding Farmington, the reallotment of Channel 3 would also be more economical both for the station operator and for the viewing public than allotment of an additional UHF channel would be. Furthermore, subsequent examination of retail sales projections and other economic indicators has led Pulitzer to conclude that activation of Station KOAV at Gallup would not be economically feasible. Thus, the existing allotment of Channel 3 to Gallup does not constitute a "potential service" for Gallup and should not outweigh the substantial public interest benefits to be obtained from reallotment of Channel 3 to Farmington.

A. Section 307(b) Considerations Establish That Farmington Warrants an Additional VHF Allotment More than Does Gallup, and Reallotment of Channel 3 Would Provide New Service to Farmington More Economically

The existing arrangement of allotments to Gallup and Farmington does not comport with the Commission's television allotment policies as set forth in the Sixth Report and Order, 41 F.C.C.2d 148 (1952). The Sixth Report and Order identified the Commission's priorities for the assignment of channels to different communities. Id. at 167-68. It made clear that "it was necessary to recognize that geographic, economic, and population conditions" figured into this calculus. Id. at 168.[3/]

With respect to the distribution of VHF and UHF assignments, the Commission explained that the effectiveness of VHF for covering large areas made it particularly appropriate for larger cities with broad areas of common interest. Id. The Commission determined that "metropolitan centers with their large aggregations of people should be assigned more VHF channels than communities comprising fewer people." Id.

Under this criterion, Farmington -- a community with almost twice the population of Gallup -- warrants an additional VHF allotment more than its neighbor to the southwest. The existing

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3/ As set forth in the Petition, these concerns are expressly factored into the Commission's allotment analysis under its fifth allotment priority: "to assign any remaining channels to communities based on population, geographic location, and the number of television services available to the community from stations located in other communities." Report and Order, 4 FCC Rcd at 4871 n.8, 66 Rad. Reg. 2d (P & F) at 880 n.8.

Table of Allotments does not reflect this consideration, however. Instead, it provides Gallup with three VHF channel allotments,[4/] and Farmington with only one VHF allotment and one UHF allotment.[5/]

The fact that none of Gallup's allotments is operational (and only Channel 3 has been applied for) only renders the inefficiency of the present scheme of allotments more acute. Moreover, the scheme is also inequitable in view of Farmington's greater commercial and cultural significance to the region. See Petition at 12-13.

Reallotment of a VHF channel to Farmington would be preferable to allotment of a UHF channel from a technical standpoint as well. First, the rugged terrain characteristics that distinguish Farmington and its surroundings from Gallup make UHF transmission functionally less suitable than VHF to cover the proposed territory. See Engineering Statement, App. at 6.

Second, a VHF facility would be more economical to construct and to operate than a comparable UHF station. As a general matter, UHF propagation characteristics require a substantially higher tower and significantly greater operating power than a comparable VHF facility reaching the same coverage area. With respect to the pending proposal, the attenuation of the UHF

4/ These are commercial channels 3 and 10, and non-commercial educational Channel 8 (-).

5/ These are Channel 12 (+), at present licensed to Station KOBF, and non-commercial educational Channel 15 (+) respectively.

signal caused by the local topography in Farmington would dictate that the permittee construct such a full-power facility just to maintain adequate coverage. Id.[6/]

Engineering projections estimate costs three to five times greater to build a UHF facility capable of serving the coverage area presently proposed for Channel 3. Id. at 7. Moreover, such a UHF facility would cost more than three times as much to operate than would Channel 3, chiefly due to the greater electrical demand of a UHF facility. Id.[7/] Allotment to Farmington of a UHF channel that would demand on the order of 1,200,000 kilowatt hours per year more electricity to operate than would Channel 3 would be unjustifiably wasteful when the

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6/ Moreover, the operator of any UHF allotment to Farmington would necessarily have to construct this more costly and energy consuming facility in order to achieve the signal quality necessary to maintain parity with Station KOBF. Engineering Statement, App. at 7.

7/ Engineering estimates indicate that Channel 3 would cost $35,000 per year to operate. By contrast, the equivalent UHF station would cost an estimated $119,000 per year to operate. Id.

proposed reallotment would still preserve two vacant VHF allotments at Gallup available for future use. Id.[8/]

Second, reallotment of Channel 3 from Gallup to Farmington would likely entail fewer costs for viewers in the Farmington area. Viewers in the outlying regions of the proposed coverage area who do not presently receive service from the UHF translator stations and require an outdoor antenna to receive the existing VHF station in Farmington, Station KOBF, would have to purchase an additional antenna to receive the signal of a new full-service UHF station. By contrast, viewers throughout the proposed coverage area are already equipped to receive Channel 3's signal without further expense. Id.

Thus, in keeping with the Commission's fifth allotment priority and the principles for implementing the allotment priorities, the Petition seeks to move a surplus VHF channel from

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8/ In the Notice, the Commission observed that several UHF channels could be allotted to Farmington while preserving Channel 3 at Gallup. Notice at 2 ¶ 8. However, Pulitzer's Petition made clear that the reverse is also true: as many as 43 UHF channels are available for allotment to Gallup if Channel 3 is reallotted. Petition at 11 n.10, Engineering Exhibit at 4. The channels would supplement the two VHF channels that would remain allotted to Gallup under the proposal.

Pulitzer has demonstrated that the proposed reallotment of Channel 3 to Farmington (where it will be used) would be more efficient and economical than preserving it at Gallup (where it will undoubtedly lie fallow). Where, as here, the proposed reallotment can be accomplished without eliminating any existing service or diminishing the number of available replacement channels should future demand emerge, the only reasonable action is to grant the proposed reallotment.

a community where it is not likely to be used to a larger, more significant, community where it can be put to more efficient use.

B. Reallotment of Channel 3 Would Not Deprive Gallup of its Only Potential Service

In the Notice, the Commission observed that "activation of Channel 3 at Gallup [under Station KOAV's present authorization] . . . would provide a first Grade B service to 62,195 persons," and expressed concern that reallotment of Channel 3 to Farmington would "depriv[e] the community [of Gallup] of its only potential service, as evidenced by the fact that Channel 3 is the only channel that has been applied for." Notice at 2 ¶ 8. However, this concern is misplaced for two reasons.

First, Station KOAV is not a "potential service" for Gallup. In the Petition, Pulitzer explained why a bare construction permit should not be considered to be an "existing service" in the reallotment context where the permittee is the proponent of the reallotment. Petition at 4-8. Among the reasons cited in support of this conclusion was that, in such circumstances, the Commission could not reliably apply its assumption, based on institutional experience, that 95 percent of all granted permits are actually built. Id. at 6-7 (citing Santee Cooper Broadcasting Company, 99 F.C.C.2d 781, 785, 57 Rad. Reg. 2d (P & F) 662, 666-67 (Rev. Bd. 1984), recon. denied, 100 F.C.C.2d 469, 57 Rad. Reg. 2d (P & F) 1363 (Rev. Bd. 1985), modified on review, 59 Rad. Reg. 2d (P & F) 730 (1986)).

Similar reasoning applies here. In its application for Channel 3 at Gallup, KOAT Television, Inc. (now Pulitzer Broadcasting Company) proposed to use KOAV as a satellite station of KOAT-TV, Albuquerque. Pulitzer, as permittee of Station KOAV, has sought the proposed reallotment and accompanying change in community of license because, contrary to its initial expectations, further analysis has led it to conclude that the Gallup market cannot economically support operation of a television station. Examination of population figures for Gallup indicate that the community has experienced almost stagnant growth over the last two decades. Farmington, by contrast, has experienced approximately 200 percent of the growth seen in Gallup. Petition at 12-14. Moreover, McKinley County (Gallup) claims significantly lower per capita income levels than San Juan County (Farmington) historically. Petition at Exhibit B.

The fact that Pulitzer faced no competing applicants for Channel 3 in Gallup and that the two other existing VHF allotments in Gallup have remained fallow testify that the judgment of the marketplace has reached the same conclusion concerning Gallup's viability. Moreover, as indicated in the Petition, Gallup residents already receive the programming of KOAT-TV via the local cable system and/or local translator stations.

Pulitzer has concluded that operation of a television station in Gallup would not be economically viable. Thus, Station KOAV is not a potential service in Gallup as presently

authorized. However, rather than let a scarce VHF allotment continue to lie vacant in Gallup, Pulitzer has advanced a plan to put it to use in a viable market where it can best advance the public interest objectives set forth in the Commission's allotment priorities.

Second, the Commission has not previously found a mere potentiality of future service sufficient to reject a reallotment proposal carrying substantial public interest benefits where the economic viability of a station in the original community of assignment has been as doubtful as it is here. In fact, the Commission has in the past preferred a proposed reassignment over allotment of a new channel in circumstances similar to those presented by this case. See Amendment of Section 73.606 Table of Assignments (Rhinelander, Wisconsin; Ironwood, Michigan), 3 Rad. Reg. 2d (P & F) 1683 (1964) ["Rhinelander & Ironwood"]. In approving the reallotment of Channel 12 over a new assignment of Channel 4, the Commission observed that the reallotment

> would remove from Ironwood, (to which Channel 31 is also assigned) [sic] a channel that was assigned to that community about 10 years ago. Two permits for its use have been granted. The first was deleted, and now it appears that the present permit, held by petitioner, will also not be used. Nor is there any evidence that the channel would be used at Ironwood in the foreseeable future. In fact, the statements of petitioner indicate that it would not be.

Rhinelander & Ironwood, 3 Rad. Reg. 2d (P & F) at 1689. The Commission thus found the reallotment consistent with the public interest, further noting that Ironwood retained an allotment

(Channel 31) available for use in the future if a station in that community became viable. Id.

The view adopted in Ironwood & Rhinelander and urged here by Pulitzer makes sound and practical allotment policy. It advances the statutory objectives of Section 307(b) by enhancing the ability of licensees and permittees to respond efficiently to the natural demographic, commercial, and cultural changes that increase the need for service in one community while inhibiting it elsewhere. Moreover, it comports fully with the Commission's traditional concern, discussed more fully in the Petition, to eschew reallotments that would interrupt or eliminate an existing service upon which viewers have come to rely.

III. CONCLUSION

The supplemental maps requested by the Commission demonstrate that the proposed reallotment of Channel 3 from Gallup to Farmington would result in a preferential table of allotments under the Commission's allotment priorities and Section 307(b) of the Communications Act, 47 U.S.C. § 307(b). The foregoing facts also demonstrate that the reallotment would be superior to preserving Channel 3 at Gallup and allotting an additional UHF channel to Farmington.

Approval of Pulitzer's Petition would result in a more efficient and equitable arrangement of allotments by moving a scarce VHF channel from a small community where it doubtless will remain idle to a community with almost twice the population where there is a greater need for it. It will produce a preferred

distribution of television facilities under the Commission's allotment priorities by introducing first service to the residents living in the large outer perimeter surrounding Farmington and by introducing a significant second service to the population residing within Farmington proper. Furthermore, the reallotment would also be more economical for both the operator and the viewing public than allotment of a new UHF channel would be.

Pulitzer continues to remain interested in operating Channel 3 if the reallotment is approved, and it pledges promptly to file an application to relocate the transmitter of KOAV to provide Farmington with a city grade signal and, if the construction permit is granted, to proceed immediately with construction of the newly authorized facilities.

Respectfully submitted,

PULITZER BROADCASTING COMPANY

By: 

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Its Attorneys

June 8, 1992

CERTIFICATE OF SERVICE

I, Laurel M. Akhund, a secretary for the law firm of Verner, Liipfert, Bernhard, McPherson and Hand, Chartered, do hereby certify that a copy of the foregoing "Comments of Pulitzer Broadcasting Company" was delivered by hand this 8th day of June, 1992 to:

Michael C. Ruger, Esq.
Acting Chief, Allocations Branch
Mass Media Bureau
Federal Communications Commission
2025 M Street, N.W.
Room 8322
Washington, D.C. 20554

Laurel M. Akhund

Dated: June 8, 1992

JULES COHEN & ASSOCIATES, P.C.
CONSULTING ELECTRONICS ENGINEERS
WASHINGTON, D.C. 20036

ORIGINAL

ENGINEERING STATEMENT
IN SUPPORT OF COMMENTS OF
PULITZER BROADCASTING COMPANY
STATION KOAV(TV)
GALLUP, NEW MEXICO
MM DOCKET NO. 92-81

This engineering statement was prepared on behalf of Pulitzer Broadcasting Company (Pulitzer), permittee of Station KOAV, Gallup, New Mexico, in support of comments in response to the *Notice of Proposed Rule Making* in MM Docket 92-81.[1] In its *Petition for Rule Making*, Pulitzer requested reallotment of Channel 3 from Gallup to Farmington, New Mexico, as the community's second local VHF television service, and the modification of the construction permit for its station KOAV to specify Farmington in lieu of Gallup as the community of license.

Pulitzer asserted in its *Petition* that allotment of Channel 3 to Farmington would provide a first Grade B service to 11,232 persons and a second Grade B service to an additional 90,462 persons. In calculating the number of persons receiving first and second Grade B services, Pulitzer took into account the impact of terrain obstructions between Durango, Colorado, and the communities of Farmington, Bloomfield, and Aztec, New Mexico, by conducting grid field strength measurements in those communities. The *Petition* also contained an analysis of field strength measurements showing that the signal strength from KREZ-TV, Channel 6, Durango, Colorado, is less than Grade B in the three communities.[2]

In the discussion contained in Paragraph 7 of the *Notice*, the FCC states that it was unable to verify Pulitzer's claimed first and second services. Accordingly, the FCC requested a

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[1] See *Amendment of Section 73.606(b), Table of Allotments, Television Broadcast Stations, (Farmington and Gallup, New Mexico), RM-7875*, released April 16, 1992.

[2] Measured median field strength from KREZ-TV was found to be less than 38.7 dBu in Farmington and Bloomfield and to be 45.8 dBu in Aztec.

map showing the approximate location of the Grade B contour for KREZ-TV. As stated in the *Petition,* use of the standard methodology to predict the location of the KREZ-TV Grade B contour is inappropriate due to terrain obstructions at distances greater than 16.2 kilometers from the transmitter. Further, it would be a difficult task to determine the location of the KREZ-TV Grade B contour using conventional measurement techniques because the terrain between Durango and the three New Mexico communities is rough and sparsely populated. Suitable roads or paths are nonexistent in many places making access to measurement points difficult and risky, if at all possible, using a field car equipped for television field measurements. The *Notice* also requested a map showing the Grade B contour for the proposed KOAV facility taking into account terrain obstructions.

In order to provide the requested coverage maps, a computer propagation model was used to determine the areas receiving Grade B or better signal strength from KREZ-TV and the proposed operation of KOAV. For consistency, the same propagation model was used to determine the area receiving Grade B or better signal strength from KOBF. The particular model used was the Communication System Performance Mode (CSPM) program developed and maintained by the Institute for Telecommunications Sciences (ITS) of the National Telecommunications and Information Administration. This program creates detailed shaded plots of field strength over a given geographic area using the ITS irregular terrain model (ITM), a sophisticated propagation model. The ITM was used to calculate path loss at multiple points along radials azimuthally spaced at about one-degree intervals around the KREZ-TV transmitter site. The path loss at each point on each radial was passed to the CSPM program, converted to

field strength[3] taking into account the effective radiated power of KREZ-TV, tabulated, and plotted.

The CSPM model was applied in a manner consistent with its design. A three-second U.S.G.S. terrain database was used to obtain the terrain elevation data required by the program, and population figures noted on the maps were obtained from the 1990 Census. Previous studies have shown a high degree of correlation between field strength predictions made using the CSPM program and conventional field measurements.

Figure 1 is a map overlaid with a CSPM plot which depicts the areas receiving signal strength of Grade B or better from KREZ-TV.[4] The map clearly shows that the KREZ-TV signal is shadowed in both Farmington and Bloomfield. Figure 1 also shows KREZ-TV providing Grade B or better signal strength to Aztec. However, both the measured field strength and the CSPM predicted field strength would support the conclusion that the KREZ-TV field strength at Aztec is marginally Grade B at best. The detailed tabulation of signal strength produced by the CSPM program and used to support this conclusion have not been included due to their size and complexity. However, the tabulations will be retained in the firm's files and will be made available to the FCC upon request.

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[3] Field strength is calculated from path loss and effective radiated power of the station. An adjustment is made to the calculated signal strength for the time and location variability of the signal. In the instant case, the field strength was calculated for 50% of the locations, 50% of the time. The CSPM program rounds calculated signal strength to the nearest 4 dB.

[4] The licensed facilities for KREZ-TV of 6.17 kilowatts effective radiated power and antenna radiation center height above mean sea level of 2391 meters were used in the study. The geographic coordinates for the transmitter site are 37° 15′ 44″ North Latitude, 107° 53′ 58″ West Longitude.

Overlaid on the CSPM plot of Figure 1 are two 47 dBu contours for KREZ-TV. The first contour, represented by a dashed line, is the 47 dBu F(50,50) contour calculated using the standard FCC methodology. The second contour, represented by a solid line, is the terrain limited 47 dBu contour determined through analysis of the CSPM data.

Figure 2 is a map overlaid with a CSPM plot which depicts the areas receiving signal strength of Grade B or better from the assumed operation of KOAV at Farmington.[5] The map shows that KOAV would be shadowed in Durango and would not provide that community with signal strength of Grade B or better.

As with Figure 1, two 47 dBu contours for the proposed operation of KOAV have been overlaid on Figure 2. The dashed contour is the 47 dBu F(50,50) contour calculated using the standard FCC methodology. The solid contour is the terrain limited 47 dBu contour determined through analysis of the CSPM data.

Figure 3 is a map overlaid with a CSPM plot which depicts the area receiving Grade B or better signal strength from KOBF.[6] Since the service area of KOBF is used in determining the areas receiving first and second service from the proposed KOAV facility, it is appropriate that the terrain limited 47 dBu contour for KOBF be determined using the same methodology used in locating the terrain limited 47 dBu contours for KREZ-TV and the proposed KOAV facility.

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[5] KOAV was assumed to be operating on Channel 3 (60 - 66 MHz) with effective radiated power of 100 kilowatts and antenna radiation center height above mean sea level of 1871 meters. The assumed transmitter site was located at 36° 41′ 48″ North Latitude, 108° 10′ 39″ West Longitude.

[6] KOBF(TV), Farmington, New Mexico, is licensed to operate on Channel 12 with effective radiated power of 316 kilowatts and antenna radiation center height above average terrain of 125 meters. The KOBF site is located at 36° 41′ 43″ North Latitude, 108° 13′ 14″ West Longitude.

As with Figures 1 and 2, two 47 dBu contours for KOBF have been overlaid on Figure 3. The dashed contour is the 47 dBu F(50,50) contour calculated using the standard FCC methodology. The solid contour is the terrain limited 47 dBu contour determined through analysis of the CSPM data.

Figure 4 is a revised version of the Figure 3 submitted with the *Petition for Rule Making* which depicts the areas that would receive first and second service under the Pulitzer proposal. The terrain limited 47 dBu contours for KREZ-TV, the proposed operation of KOAV, and KOBF depicted in Figures 1, 2, and 3, respectively, have been transferred to the map of Figure 4.

The areas shown in Figure 4 which would receive first and second service from KOAV were transferred to county subdivision maps for Colorado, Arizona and New Mexico. The maps were obtained from the Bureau of the Census, Publication CPH-1, for those states and reflect the 1990 Census county subdivision boundaries.

The populations and areas which would receive first and second service from the proposed operation of KOAV are as follows.

	Population (persons)	Area (square kilometers)
First TV Service	3,366	3,162
Second TV Service	67,444	10,176

The proposed terrain limited 47 dBu contour encloses a total of 114,953 persons within 16,750 square kilometers.

The populations were determined manually using 1990 Census data. Uniform distribution of population within each subdivision, town and city was assumed. When only part of a subdivision, town or city was enclosed by the terrain limited 47 dBu contour, the populations enumerated were in the same proportion as the areas enclosed. Areas were determined using a planimeter, taking into account the appropriate map scale factor.

Figure 5 is a map depicting the areas where the predicted signal strength for the assumed operation of KOAV is Grade B or better and the predicted signal strength for KREZ-TV is less than Grade B. The data set used in preparing Figure 5 is the union of the Figure 1 and Figure 2 data sets. Because the data set for KREZ-TV is not as extensive to the south as the data set for KOAV, the map of Figure 5 does not depict the entire area in which KOAV is predicted to provide Grade B or better service. Figure 5 highlights where in the area of interest the CSPM program predicts service from KOAV and does not predict service from KREZ-TV.

In its *Notice*, the FCC also seeks information demonstrating why the reallotment of Channel 3 from Gallup to Farmington would be superior to the allotment of a UHF channel to Farmington and the retention of Channel 3 at Gallup. A brief description of some of the technical advantages of the use of Channel 3 over a UHF channel follow.

The cost of constructing and operating a Channel 3 facility would be substantially less than that of constructing and operating an equivalent UHF facility. Assuming ERP of 100 kW and HAAT of 150 meters, the distance to the Grade B contour for the Channel 3 facility would be 88.7 kilometers assuming uniform terrain for comparison purposes. To provide that same wide-area service on a UHF channel would require ERP of 5,000 kW and HAAT of 355 meters. The area surrounding Farmington is characterized by rough terrain. UHF transmission over rough terrain is impaired by diffraction losses to a far greater extent than is VHF transmission. Therefore, use of a taller tower would be imperative to overcome the diffraction losses at UHF.